BEVERAGE CONTAINER LIDS AND METHODS OF MANUFACTURING BEVERAGE CONTAINER LIDS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation-in-part application of U.S. Patent Application 10/641,612, entitled "BEVERAGE CONTAINER LIDS AND METHODS OF MANUFACTURING BEVERAGE CONTAINER LIDS," filed August 15, 2003, which claims the benefit of U.S. Design Patent Application No. 29/178,384, filed March 25, 2003, both of which are hereby incorporated by reference in their entireties.

TECHNICAL FIELD

[0002] The present invention relates generally to beverage container lids and methods of manufacturing beverage container lids. More particularly, the invention is directed to beverage container lids having medium members.

BACKGROUND

[0003] Coffee chains, restaurants, movie theaters, sport venues, and other vendors sell coffee, juices, carbonated beverages, bottled water, and other beverages. Typically, beverages are served in a container with a lid attached to the container to prevent the beverage from spilling. After purchasing a beverage, an individual often consumes the beverage in a public place. For example, individuals frequently consume drink beverages at cafes, workplaces, sidewalks, restaurants, sport venues, and other public locations. As such, the beverage containers are highly visible to the public.

[0004] Previous attempts have been made to capitalize on the visibility of beverage containers. For example, advertisements have been placed on the

outer wall of containers and on paper sleeves that slide over a portion of the container to thermally insulate the consumer's hand. These advertising approaches, however, have several drawbacks. First, the advertisements on the sleeves and the outer wall of the containers are often covered by the consumer's hand. Accordingly, the advertisements are frequently obscured from view. Moreover, the consumer and/or vendor may not place the sleeve having the advertisement on the container. In addition, it is complex and expensive to manufacture containers with advertisements formed on the outer wall. Therefore, there is a need to improve the methods of advertising used with beverages.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Figure 1 is an isometric view of a container and a container lid in accordance with one embodiment of the invention.

[0006] Figure 2 is an isometric view of a container and a container lid in accordance with another embodiment of the invention.

[0007] Figure 3A is a front isometric view of a container and a container lid in accordance with another embodiment of the invention.

[0008] Figure 3B is a top plan view of the container lid of Figure 3A.

[0009] Figures 4A and 4B are top plan views of a container lid in accordance with another embodiment of the invention.

[0010] Figure 5 is an isometric view of a container and a container lid in accordance with another embodiment of the invention.

[0011] Figure 6 is an isometric view of a container and a container lid in accordance with another embodiment of the invention.

[0012] Figure 7A is a schematic front isometric view of a container lid in accordance with another embodiment of the invention.

[0013] Figure 7B is a schematic top plan view of the container lid of Figure 7A.

[0014] Figure 7C is a schematic side view of the container lid of Figure 7A.

[0015] Figure 8 is a schematic top plan view of a container lid in accordance with another embodiment of the invention.

[0016] Figure 9A is a schematic front isometric view of a container lid in accordance with another embodiment of the invention.

[0017] Figure 9B is a schematic top plan view of the container lid of Figure 9A.

[0018] Figure 9C is a schematic side view of the container lid of Figure 9A.

DETAILED DESCRIPTION

A. Overview

[0019] The present invention is directed to beverage container lids and methods for manufacturing beverage container lids. In the following description, numerous specific details are provided of particular configurations of beverage containers and beverage container lids to provide a thorough understanding of and an enabling description for embodiments of the invention. Those of ordinary skill in the art, however, will recognize that the invention can be practiced without one or more of the specific details explained in the following description. In other instances, well-known structures and operations are not shown or described in detail to avoid obscuring aspects of the invention.

[0020] Several aspects of the invention are directed to beverage container lids. In one embodiment, a beverage container lid includes a thin, flexible body and an information member coupled to the body. The body includes a snap-fit retainer configured to engage a lip of a container, a support surface, and an opening in the support surface through which a fluid can flow. The information member includes a first surface juxtaposed and coupled to the support surface, a second surface opposite the first surface, and indicia on the first and/or second surface.

[0021] In one aspect of this embodiment, the opening can be defined by tabs configured to flex as a straw is inserted into the opening. Alternatively, the opening can be circular or another suitable configuration. In either case, the support surface can include a central portion and an outer portion, and the opening can be formed in the outer portion of the support surface. In another aspect of this embodiment, the body can further include a plurality of flexible

buttons on the support surface. The support surface can be a recessed support surface and the body may not include other recesses.

B. Embodiments of Beverage Container Lids Including Medium Members

[0022] Figure 1 is an isometric view of a container 100 and a container lid 110 attached to the container 100 in accordance with one embodiment of the invention. The container 100 is a receptacle configured to contain beverages such as drinks, water, juices, coffee, tea, and/or other beverages for storage and/or consumption. The container 100 can be a low-cost, disposable cup or bottle made of paper products, Styrofoam, plastic, or other suitable materials. Alternatively, the container 100 can be a washable, reusable receptacle or other type of vessel for carrying beverages. In the illustrated embodiment, the container 100 includes an upper portion 102 to which the container lid 110 is removably attached. In other embodiments, the container 100 can have other configurations, and/or the container lid 110 may not be removably attached to the container 100. For example, the container lid 110 can be fixed to the container 100, or the container lid 110 can be integral with the container 100.

[0023] The container lid 110 includes a body 120 and a separate medium member 150 carried by the body 120. The body 120 can be a thin, flexible, disposable plastic member formed by stamping, pressing, or other suitable manufacturing processes. In the illustrated embodiment, the body 120 includes a top surface 122, a support surface 124 offset from the top surface 122, a recess 130 between a portion of the support surface 124 and the top surface 122, and an engagement portion 140 to releasably engage the upper portion 102 of the container 100. The top surface 122 can have an annular shape and include an opening 128 through which a user drinks. The top surface 122 can also include a vent opening 129 opposite the opening 128 to allow air to flow into the interior region of the container 100 as fluid flows out through the opening 128. In the illustrated embodiment, the support surface 124 can be a flat surface that is generally parallel to the top surface 122. Moreover, the support surface 124 can be recessed from the top surface 122 and configured to carry the medium member

150. In other embodiments, the top surface 122 and the support surface 124 can be coplanar and/or the support surface 124 can have another configuration.

[0024] The recess 130 is configured to facilitate drinking from the container lid 110. More specifically, the recess 130 allows a user to comfortably place his or her lips on each side of the opening 128 to drink. In the illustrated embodiment, the recess 130 is defined by an interior back wall 132, a recessed surface 134, and an interior front wall 136. The interior back wall 132 extends from the support surface 124 to the recessed surface 134. In the illustrated embodiment, the interior back wall 132 is generally perpendicular to the support surface 124, and the recessed surface 134 is generally parallel to the top surface 122. The interior front wall 136 extends downward from the radially inward edge of the top surface 122. More specifically, a first portion of the interior front wall 136 extends from the top surface 122 to the recessed surface 134, and a second portion of the interior front wall 136 extends from the top surface 122 to the support surface 124. In other embodiments, the body 120 may not include the interior back wall 132. For example, the recessed surface can be oriented at an angle to increase the depth of the recess as the recessed surface extends from the support surface 124 toward the interior front wall 136 adjacent to the opening 128. In additional embodiments, the recess 130 can have other configurations, or, alternatively, the body 120 may not include a recess.

[0025] The medium member 150 is carried by the body 120 and conveys a message or other information to individuals who view the container lid 110. The medium member 150 includes a first surface 152 and a second surface 154 opposite the first surface 152. The second surface 154 can be securely attached to the support surface 124 with an adhesive. For example, the second surface 154 can include an adhesive similar to the adhesive placed on the back of a sticker to attach the medium member 150 to the support surface 124. In other embodiments, another type of adhesive can be deposited onto the support surface 124 and/or the second surface 154 before the medium member 150 is placed on the support surface 124. In other embodiments, such as the

embodiment described below with reference to Figure 2, at least a portion of the medium member 150 is removable from the body 120.

[0026] The medium member 150 of the illustrated embodiment is sized and shaped to substantially cover the support surface 124. More specifically, the medium member 150 includes a straight edge 160 adjacent to the interior back wall 132 and an arcuate edge 162 adjacent to the interior front wall 136. In other embodiments, the medium member 150 can have other configurations. For example, the medium member 150 can have a rectangular, triangular, circular, or other shape. Moreover, in additional embodiments, the medium member 150 may not substantially cover the entire area of the support surface 124. The medium member 150 can also include a vent 129' to be superimposed over a vent in the support surface 124 in lieu of or in addition to the vent 129 in the top surface 122 of the body 120.

[0027] The medium member 150 includes indicia 170 on the first surface 152 to provide information to individuals who view the container lid 110. The indicia 170 can include an alphanumeric text 172, a graphic 174, symbols, and/or images. For example, in the illustrated embodiment, the text 172 states "ALSO TRY OUR FRESH BEANS" and the graphic 174 represents a bag of coffee beans. In other embodiments, the indicia 170 can include other text, symbols, images, and/or graphics. In additional embodiments, the indicia 170 can be photo-responsive, such as being configured to glow in the dark.

[0028] One feature of the container lid 110 of the illustrated embodiment is that the medium member 150 can include an advertisement, a coupon, a contest piece, a promotional message, and/or other information. An advantage of this feature is that the information on the medium member 150 is displayed at a highly visible location that is not likely to be covered as the user holds the container 100. Accordingly, the information is highly visible for the purchaser of the container 100 and others to see. For example, a vendor who sells beverages in the container 100 can advertise other products, provide coupons, and/or display other

information on the medium member 150. Alternatively, the vendor can generate revenue by allowing other companies to advertise on the medium member 150.

[0029] Another advantage of the container lid 110 of the illustrated embodiment is that the body 120 can be manufactured for use with a standard-size container. Alternatively, the body 120 can be manufactured for use with a custom-size container according to a customer's specifications. Moreover, the medium member 150 can be formed with several generic promotional messages, or alternatively, the medium member 150 can include custom messages for specific customers.

C. Other Embodiments of Beverage Container Lids Including Medium Members

[0030] Figure 2 is an isometric view of a container 100 and a container lid 210 removably attached to the container 100 in accordance with another embodiment of the invention. The container lid 210 can be generally similar to the container lid 110 described above with reference to Figure 1. For example, the container lid 210 includes a body 120 and a medium member 250 carried by the body 120. The medium member 250 includes a first portion 251 securely attached to the body 120 and a second portion 255 removably attached to the first portion 251. In the illustrated embodiment, the first portion 251 includes a first surface 252, a second surface 254 attached to the support surface 124, and a plurality of first indicia 270a on the first surface 252. The second portion 255 of the medium member 250 includes a first surface 256, a second surface 258 opposite the first surface 256, and a plurality of second indicia 270b on the first surface 256. The first and second indicia 270a-b can include alphanumeric characters, symbols, images, and/or graphics.

[0031] The second surface 258 of the second portion 255 of the medium member 250 can also include indicia. For example, in one embodiment, the second portion 255 can include a coupon. In one such embodiment, the second indicia 270b on the first surface 256 can indicate the product and the savings to the

consumer, and the indicia on the second surface 258 can include a bar code to facilitate redemption of the coupon.

[0032] In the illustrated embodiment, the first and second portions 251 and 255 are generally the same size and have generally the same shape. More specifically, the first and second portions 251 and 255 each include a straight edge 260a-b and an arcuate edge 262a-b. Accordingly, when the second portion 255 is attached to the first portion 251, the second portion 255 covers the first portion 251. In other embodiments, the first and second portions 251 and 255 can have different shapes and configurations.

[0033] The second portion 255 of the medium member 250 is configured to be removably attached to the first portion 251. In one embodiment, the first surface 252 of the first portion 251 can have a glossy coating and the second surface 258 of the second portion 255 can have an adhesive to adhere to the glossy coating. In other embodiments, other attachment devices can be used. In any of these embodiments, the first surface 252 of the first portion 251 can be coupled to the second surface 258 of the second portion 255 when the medium member 250 is attached to the support surface 124 of the body 120. The second portion 255 can be subsequently detached from the first portion 251. For example, after purchasing the beverage, the purchaser may detach the second portion 255 from the first portion 251. In one embodiment, the second portion 255 includes a tab 280 (shown in broken lines) projecting from the arcuate edge 262b to enable the purchaser to pull the second portion 255 off the first portion 251. In other embodiments, the second portion 255 may not include a tab 280 and may be peeled off the first portion 251.

[0034] In the illustrated embodiment, the second portion 255 includes a coupon or a proof of purchase toward a frequent user discount. Accordingly, the purchaser may detach and retain the coupon before disposing of the container 100 and the container lid 210. In other embodiments, the second portion 255 may include other interesting or valuable information that a purchaser may want to retain. Moreover, the medium member 250 may include a game piece in which the

second portion 255 is removed and the first indicia 270a on the first portion 251 or the indicia on the second surface 258 of the second portion 255 reveal whether the game piece is a winner.

[0035] One feature of the container lid 210 of the illustrated embodiment is that the second portion 255 of the medium member 250 can be easily detached from the first portion 251. An advantage of this feature is that the second portion 255 can include a coupon, a proof of purchase, a message, an address, and/or other information that the user can conveniently detach and retain in a pocket, purse, or other location. Another feature of the container lid 210 is that the first indicia 270a are covered before the second portion 255 is detached from the first portion 251. An advantage of this feature is that the medium member 250 can be used as a game piece or other device in which information is temporarily hidden.

[0036] Figure 3A is a front isometric view of a container 100 and a container lid 310 removably attached to the container 100 in accordance with another embodiment of the invention. The container lid 310 can be generally similar to the container lid 110 described above with reference to Figure 1. For example, the container lid 310 includes a body 120 and a medium member 350 carried by the body 120. The medium member 350 includes a first surface 352 and a second surface 354 attached to a support surface 124 of the body 120. Figure 3B is a top plan view of the container lid 310 of Figure 3A. Referring to Figures 3A and 3B, the medium member 350 includes a plurality of first indicia 370a (shown in Figure 3A) and a plurality of second indicia 370b (shown in Figure 3B). In the illustrated embodiment, the first and second indicia 370a-b include alphanumeric text. For example, the first indicia 370a include "INTRODUCING OUR NEWEST BEVERAGE," and the second indicia 370b include "ALSO AVAILABLE IN A LITE VERSION." In other embodiments, the indicia 370a-b can also include symbols, images, and/or graphics.

[0037] In the illustrated embodiment, the first and second indicia 370a-b include lenticular elements. More specifically, the first indicia 370a are visible when the container lid 310 is viewed at a first angle (as illustrated in Figure 3A), and the

second indicia 370b are visible when the container lid 310 is viewed at a second angle (as illustrated in Figure 3B) different than the first angle. The first indicia 370a are not visible when the container lid 310 is viewed at the second angle, and the second indicia 370b are not visible when the container lid 310 is viewed at the first angle. In this embodiment, the first and second indicia 370a-b are formed on the medium member 350 through lenticular printing. In other embodiments, the medium member 350 can include a hologram or other suitable device so that the indicia that are visible change as the angle at which the medium member is viewed changes. In additional embodiments, the medium member 350 can include a first portion and a second portion removable from the first portion, as described above with reference to Figure 2.

[0038] Figures 4A and 4B are top plan views of a container lid 410 in accordance with another embodiment of the invention. The container lid 410 can be generally similar to the container lid 110 described above with reference to Figure 1. For example, the container lid 410 includes a body 120 and a medium member 450 carried by the body 120. The medium member 450 includes a plurality of thermally responsive indicia 470a-b. More specifically, a plurality of first indicia 470a (shown in Figure 4A) are visible when the body 120 is at a first temperature, and a plurality of second indicia 470b (shown in Figure 4B) are visible when the body 120 is at a second temperature different than the first temperature. The first indicia 470a are not visible when the body 120 is at the second temperature, and the second indicia 470b are not visible when the body 120 is at the first temperature. Accordingly, the indicia 470a-b visible to the user change depending on the temperature of the body 120. In other embodiments, the medium member 450 can further include indicia that are not thermally responsive. One advantage of this embodiment is that as the temperature of the beverage in the container changes, the indicia 470a-b on the container lid 120 that are visible to the user can also change.

[0039] Figure 5 is an isometric view of a container 100 and a container lid 510 removably attached to the container 100 in accordance with another embodiment

of the invention. The container lid 510 can be generally similar to the container lid 110 described above with reference to Figure 1. For example, the container lid 510 includes a body 120 and a medium member 550 carried by the body 120. The medium member 550 includes a first surface 552, a second surface 554 attached to a support surface 124, and indicia 570 on the first surface 552. The container lid 510 further includes a consumable item 580 (shown in broken lines) carried by the medium member 550. In the illustrated embodiment, the consumable item 580 is a breath mint. In other embodiments, the consumable item 580 may be gum, candy, a breath strip, or another object suitable for freshening breath or consumption. In the illustrated embodiment, the container lid 510 includes a wrapper 582 to contain the consumable item 580. The wrapper 582 can be a thin piece of plastic to protect the consumable item 580 from exposure to the ambient environment. In other embodiments, the consumable item 580 can be removably attached to the medium member 550 with other devices. In additional embodiments, the container lid 510 may not include the medium member 550 and the consumable item 580 can be attached to the body 120.

[0040] Figure 6 is an isometric view of a container 100 and a container lid 610 removably attached to the container 100 in accordance with another embodiment of the invention. The container lid 610 can be generally similar to the container lid 110 described above with reference to Figure 1. For example, the container lid 610 includes a body 620 and a medium member 650 carried by the body 620. The medium member 650 can include a display 659 configured to selectively display indicia 670 including alphanumeric characters, symbols, images, and/or graphics. Suitable medium members 650 include products developed by E Ink Corporation of Cambridge, Massachusetts, T-Ink Incorporated of New York, New York, and Universal Display Corporation of Ewing, New Jersey.

[0041] The container lid 610 can further include a receiver 692 (shown in broken lines) operably coupled to the medium member 650 and configured to receive signals from a wireless network 690 (shown schematically). The wireless network

690 can be a local area network, a hotspot, a WI-FI, or other wireless network. The receiver 692 accordingly receives signals from the wireless network 690, which are displayed on the medium member 650 as the indicia 670. The indicia 670 can include advertisements, news, stock quotes, and/or other information. The container lid 610 can also include a speaker 688 operably coupled to the receiver 692. The speaker 688 accordingly transforms the signals from the wireless network 690 into an audio stream audible to those individuals who are proximate to the container lid 610. In other embodiments, the container lid 610 may not include both the display 659 and the speaker 688.

[0042] One feature of the illustrated embodiment is that a vendor can sell a beverage in the container 100 and provide information to the user through the display 659 and/or the speaker 688 on the container lid 610. An advantage of this feature is that the vendor can advertise or provide other information to the user in real time. Accordingly, the information displayed on the medium member 650 can change periodically.

[0043] In additional embodiments, the container lid 610 can further include an electronic tag to communicate with external electronic devices in lieu of or in addition to the receiver 692. In one embodiment, the communication device can be a hypertag manufactured by Hypertag Limited, of Cambridge, United Kingdom. The hypertag can communicate with personal digital assistants (PDAs), mobile phones, and/or other electronic devices via infrared, Bluetooth, or other wireless technology. For example, in one embodiment, if a user points a mobile phone toward the hypertag, content such as a website can be automatically displayed on the phone. This content can coincide with the information displayed on the medium member 650. For example, the display 659 can include an advertisement for a movie and the hypertag can direct an electronic device to a website for purchasing movie tickets.

[0044] Figure 7A is a schematic front isometric view and Figure 7B is a schematic top plan view of a container lid 710 in accordance with another embodiment of the invention. Figure 7C is a schematic side view of the container lid 710 with a straw

inserted into an opening of the lid 710. Referring to Figures 7A-7C, the container lid 710 includes a body 720 and a medium member 750 carried by the body 720. The illustrated body 720 includes a top surface 722, a support surface 724 radially inward of the top surface 722, and an opening 728 in the support surface 724. The top surface 722 can slope downward as it extends radially inward such that the support surface 724 is recessed. Alternatively, the body 720 may not include a top surface and the support surface may not be recessed. In either of these embodiments, the body 720 may not include any other recesses.

[0045] The illustrated opening 728 is in an outer region of the support surface 724 and, accordingly, coplanar with the surface 724. In other embodiments, however, the opening can be formed at the center of the support surface 724 or another location in the body 720. The illustrated opening 728 is defined by a plurality of tabs 729 configured to flex so that a straw 790 can be inserted into the opening 728. In additional embodiments, such as the embodiment described below with reference to Figure 8, the opening can have other configurations that may or may not include tabs.

[0046] The medium member 750 in this embodiment is attached to the support surface 724. The medium member 750 can include indicia (not shown) and be generally similar to one of the medium members described above with reference to Figures 1-6. The illustrated body 720 further includes a side surface 726 and an engagement portion 740 to releasably engage the upper portion of a container. The length of the side surface 726 can vary depending on the desired height of the lid 710. For example, in the illustrated embodiment, the side surface 726 spaces the support surface 724 apart from the engagement portion 740 by a gap G. In other embodiments, such as the embodiment described below with reference to Figures 9A-9C, the gap may be smaller.

[0047] Figure 8 is a schematic top plan view of a container lid 810 in accordance with another embodiment of the invention. The lid 810 can be generally similar to the lid 710 described above with reference to Figures 7A-7C. For example, the lid 710 includes a body 820 having a support surface 824 and an opening 828 in the

support surface 824. The opening 828 can be generally circular or have another suitable configuration to receive a beverage dispenser, straw, or other object. Moreover, the opening 828 can be sized and configured such that a consumer can drink from the opening 828.

[0048] Figure 9A is a schematic front isometric view and Figure 9B is a schematic top plan view of a container lid 910 in accordance with another embodiment of the invention. Figure 9C is a schematic side view of the container lid 990 with a straw inserted into an opening of the lid 910. Referring to Figures 9A-9C, the container lid 910 includes a body 920 and a medium member 750 carried by the body 920. The illustrated body 920 includes a support surface 924, an opening 728 in the support surface 924, and a plurality of buttons 925 in the support surface 924. The buttons 925 can be flexible so that they can be depressed and remain in a depressed position. The support surface 924 may also include text 927 corresponding to the individual buttons 925. The illustrated body 920 further includes an engagement portion 940 to releasably engage the upper portion of a container.

[0049] From the foregoing, it will be appreciated that specific embodiments of the invention have been described herein for purposes of illustration, but that various modifications may be made without deviating from the spirit and scope of the invention. Accordingly, the invention is not limited except as by the appended claims.